CLAIMS

WHAT IS CLAIMED IS:

1. A method for treating a vulnerable tissue site of an intracorporeal body, comprising, providing a containment member adjacent to an exterior surface of the site.

2. The method of Claim 1 wherein the member is positioned to apply resistive force to the tissue site.

3. The method of Claim 2 wherein the force substantially minimizes the further vulnerability of the tissue site.

4. The method of Claim 3 wherein the force is compressive against the exterior surface of the site.

5. The method of Claim 1 wherein the containing is achieved by a containment member.

6. The method of Claim 4 wherein the force is applied by a containment member.

7. The method of Claim 5 wherein the containment member at least partially covers the exterior surface of the tissue site.

8. The method of Claim 6 wherein the containment member at least partially covers the exterior surface of the tissue site.

9. The method of Claim 5 wherein the containment member at least partially encloses the exterior surface of the tissue site.

10. The method of Claim 6 wherein the containment member at least partially encloses the exterior surface of the tissue site.

11. The method of Claim 5 wherein the containment member is secured at least in part to the tissue site.

12. The method of Claim 6 wherein the containment member is secured at least in part to the tissue site.

13. The method of Claim 5 wherein the containment member is further extended to an adjacent tissue site.

14. The method of Claim 6 wherein the containment member is further extended to an adjacent tissue site.

15. The method of Claim 13 wherein the containment member is further secured at least in part to the adjacent tissue site.

16. The method of Claim 14 wherein the containment member is further secured at least in part to the adjacent tissue site.

17. The method of Claim 1 wherein the vulnerable tissue site is not native to the intracorporeal body.

18. The method of Claim 4 wherein the vulnerable tissue site is not native to the intracorporeal body.

19. A method for treating a vulnerable tissue site of an intracorporeal body, comprising:

providing a containment member;

disposing the containment member about the vulnerable tissue site so as to at least partially cover at least a portion of the exterior surface of the tissue site.

20. The method of Claim 19 wherein the containment member at least partially encloses the tissue site.

21. The method of Claim 19 wherein the containment member further disposed at least partially about a tissue site adjacent the vulnerable tissue site.

22. The method of Claim 19 wherein the vulnerable tissue site is not native to the intracorporeal body.

23. The method of Claim 19 further including the step of delivering the containment member to the tissue site through an access site.

24. The method of Claim 19 wherein the access site is on the surface of the intracorporeal body.

25. The method of Claim 19 wherein the access site is within the intracorporeal body.

26. The method of Claim 20 wherein the tissue site is part of a first tubular body having a first lumen.

27. The method of Claim of Claim 26 wherein the containment member is advanced through the first lumen of the first tubular member and through the access site in a wall of the first tubular member and disposed about an exterior surface of the tissue site.

28. The method of Claim 27 wherein the containment member at least partially contains at least a portion of the length of the tissue site.

29. The method of Claim 25 or 26 wherein the access site is part of a second tubular body member having a second lumen and disposed, at least in part, substantially parallel or adjacent the tissue site.

30. The method of Claim 29 wherein the containment member is advanced through the second tubular body and through the access site located in a wall of the second tubular body and disposed about an exterior surface of the tissue site.

31. The method of Claim 23 wherein the tissue site is accessed laparoscopically.

32. The method of Claim 23 wherein the containment member is advanced through the access site endoscopically.

33. The method of Claim 23 wherein at least a portion of the containment member includes a radiopaque material.

34. The method of Claim 23 further including the step of delivering therapeutic fluid to the tissue site.

35. The method of Claim 23 wherein the intracorporeal body including the vulnerable tissue site includes any one of thoracic cavity, abdominal cavity, cerebral cavity, blood vessel, tissue, vein graft, vein, gland, heart, vessel, nerve, stomach, or liver.

36. The method of Claim 29 wherein the second tubular body includes any one of esophagus, trachea, vena cava, vein, artery, sinus, aorta, heart, stomach, duct, or intestines.

37. The method of Claim 19 further including providing a catheter for introducing the containment member into the intracorporeal body.

38. The method of Claim 37 wherein the containment member is released into the intracorporeal body after the disposing step.

39. A method for treating a vulnerable tissue site of an intracorporeal tubular member, comprising:

providing a support member;

providing a containment member;

disposing the support member along the interior lumen of the tubular member along at least a portion thereof which includes the vulnerable tissue site;

disposing the containment member about an exterior surface of the vulnerable tissue site so as to at least partially cover at least a portion of the exterior surface of the tissue site.

40. The method of Claim 39 wherein the containment member is further disposed in part on a tissue site adjacent the vulnerable tissue site.

41. The method of Claim 40 wherein the containment member extends along at least a portion of the vulnerable tissue site.

42. The method of Claim 41 wherein the containment member is longitudinally disposed on either side of the support member.

43. The method of Claim 39 wherein the support member has an outer and an inner surface and an inner lumen defined by the inner surface and configured for passage of fluid therethrough.

44. The method of Claim 40 wherein the containment member defines a neck on the vulnerable tissue site on at least one end of the containment member.

45. The method of Claim 44 wherein the support member abuts the neck formed by the containment member.

46. A containment member for containing a region of a vulnerable tissue of predetermined dimensions, and providing a containment surface of sufficient dimensions to at least partially encircle the region of vulnerable tissue.

47. The containment member of Claim 46 wherein the containment member includes at least one free end.

48. The containment member of claim 47 wherein the containment member includes at least one atraumatic end.

49. The containment member of Claim 46 wherein the containment member comprises a strand.

50. The containment member of Claim 49 wherein the strand forms a tubular member.

51. The containment member of Claim 49 wherein the strand includes a wire member.

52. The containment member of Claim 49 wherein the strand includes a ribbon member.

53. The containment member of any one of Claims 49, 50, 51, or 52 wherein the strand includes a plurality of longitudinally oriented strands transversely spaced apart and attached to an adjacent strand with an attachment mean.

54. The containment member of Claim 53 wherein the longitudinally oriented strands have a width ranging from about 0.001 to about 2 centimeters.

55. The containment member of any one of Claims 49, 50, 51, or 52 wherein the strand includes a plurality of longitudinally oriented strands transversely spaced apart and a plurality of transversely oriented strands longitudinally spaced apart, the longitudinally oriented strands connected to one another by at least one of the transversely oriented strands.

56. The containment member of Claim 55 wherein the longitudinally oriented and transversely oriented strands have a width, independently, ranging from about 0.0001 to about 2 centimeters.

57. The containment member of any one of Claims 49, 50, 51, or 52 wherein the strand is formed of a material from the group consisting of polymers, metals, shape memory alloys, bio-degradable material, and a combination thereof.

58. The containment member of Claim 56 wherein the shape memory alloy includes nickel titanium.

59. The containment member of any one of Claims 49, 50, 51, or 52 wherein the strand is in the form of a coil.

60. The containment member of Claim 59 wherein the coil has a constant diameter.

61. The containment member of Claim 59 wherein the coil has a variable diameter.

62. The containment member of Claim 59 wherein the coil is tapered at either or both ends.

63. The containment member of Claim 59 wherein at least some of the turns of the coil when disposed about the exterior of the tissue site wrap around the circumference of the tissue site.

64. The containment member of Claim 59 wherein the turns of the coil when disposed about the exterior of the tissue site form an arcuate structure.

65. The containment member of Claim 59 wherein the coil in a relaxed configuration has a pitch between adjacent turns ranging from about 0.002 to about 20 centimeters.

66. The containment member of Claim 65 wherein the pitch ranges from about 0.002 to about 2 cm.

67. The containment member of Claim 65 wherein the pitch ranges from about 2 to about 10 cm.

68. The containment member of Claim 65 wherein the pitch ranges from about 10 to about 20 cm.

69. The containment member of Claim 65 wherein the coil has a variable pitch.

70. The containment member of Claim 65 wherein the containment member has means to secure the adjacent turns of the coil.

71. The containment member of Claim 70 wherein the securing means includes any one of coil, wire, or strand.

72. The containment member of Claim 49 wherein the containment member has a longitudinal dimension ranging from about 1 mm to about 50 cm.

73. The containment member of Claim 49 wherein the containment member includes multiple lumens.

74. The containment member of Claim 73 wherein at least one of the multiple lumens is configured to be an inflation lumen, a therapeutic fluid delivery lumen, or a strand lumen.

75. The containment member of Claim 49 wherein the containment member has outer and inner surfaces defining at least in part a wall, a lumen disposed within the wall, and a containment surfaces defined at least in part by the inner surface of the wall.

76. The containment member of Claim 75 wherein the containment member is configured to deliver therapeutic fluids to the tissue site.

77. The containment member of Claim 75 wherein the lumen defined by the containment member inner and outer surfaces is a fluid lumen, either or both the containment member outer and inner surfaces including at least one aperture fluidically connectable to the containment member fluid lumen.

78. The containment member of Claim 77 wherein the aperture size ranges from about 1 micron to about 2 millimeters.

79. The containment member of Claim 78 wherein the aperture size ranges from about 1 micron to about 1 cm.

80. The containment member of Claim 77 wherein the fluid lumen is fluidically connectable to a source of therapeutic fluid.

81. The containment member of Claim 50 wherein the containment member has an outer diameter and an inner diameter defined by the inner surface.

82. The containment member of Claim 81 wherein the inner diameter is configured to have a variable dimension.

83. The containment member of Claim 82 wherein the containment member has outer and inner surfaces and a fluid lumen defined therebetween and a containment lumen defined by the inner surface, and the inner diameter of the containment member is decreased upon the expansion of the containment member fluid lumen.

84. The containment member of Claim 83 wherein the fluid lumen is fluidically connectable to a source of inflation lumen.

85. The containment member of Claim 49 wherein the containment member further includes a sleeve disposed on at least a portion of an exterior surface of the containment member.

86. The containment member of Claim 85 wherein the sleeve includes multiple lumens.

87. The containment member of Claim 86 wherein at least one of the multiple lumens of the sleeve is configured to be an inflation lumen.

88. The containment member of Claim 85 wherein the sleeve has an inner and outer surface and an inner lumen disposed therebetween.

89. The containment member of Claim 88 wherein the containment member has an inner diameter defined by an inner surface of the containment member, the containment member inner diameter decreasing upon the expansion of the sleeve inner lumen.

90. The containment member of Claim 89 wherein the sleeve inner lumen is fluidically connectable to a source of inflation fluid.

91. The containment member of Claim 75 wherein the containment member is configured to at least partially encircle at least a portion of the tissue site.

92. The containment member of Claim 91 wherein the containment member is configured to at least partially encircle at least a portion of a tissue site adjacent the vulnerable tissue site.

93. The containment member of Claim 75 wherein the containment member inner surface has a curvature substantially less than 360°.

94. The containment member of Claim 75 wherein the containment member inner surface includes an adhesion promoter.

95. The containment member of Claim 94 wherein the adhesion promoter is selected from the group consisting of fibrin and cyanoacrylates.

96. The containment member of Claim 50 wherein the containment member has an outer surface defining an outer diameter and an inner surface defining an inner diameter.

97. The containment member of Claim 96 wherein the vulnerable tissue site has a first thickness and a tissue site adjacent the vulnerable tissue site has a second thickness.

98. The containment member of Claim 97 wherein the dimension of the inner diameter of the containment member in a relaxed configuration is substantially the same or slightly larger than the thickness of the vulnerable tissue site.

99. The containment member of Claim 97 wherein the dimension of the inner diameter of the containment member in a relaxed configuration is substantially larger than the thickness of the vulnerable tissue site.

100. The containment member of Claim 99 wherein the dimension of the inner diameter of the containment member in a relaxed configuration is about 25% larger than the thickness of the vulnerable tissue site.

101. The containment member of Claim 97 wherein the dimension of the inner diameter of the containment member in a relaxed configuration is substantially between the first thickness of the vulnerable tissue site and second thickness of the adjacent tissue site.

102. The containment member of Claim 97 wherein the dimension of the inner diameter of the containment member in a relaxed configuration is substantially the same as the second thickness of the adjacent tissue site.

103. The containment member of Claim 97 wherein the dimension of the inner diameter of the containment member in a relaxed configuration is slightly less than the second thickness of the adjacent tissue site.

104. The containment member of Claim 97 wherein the dimension of the inner diameter of the containment member in a relaxed configuration is about 10% less than the second thickness of the adjacent tissue site.

105. The containment member of Claim 101 wherein the vulnerable and adjacent tissue sites are part of a first tubular member and the first and second thicknesses are defined by outer diameters of the vulnerable and adjacent tissue sites, respectively.

106. The containment member of Claim 77 wherein the aperture is configured to delivered hardenable material to the exterior surface of vulnerable tissue site.

107. A containment member for containing a region of a vulnerable tissue of predetermined dimensions, and configured to provide a containment surface of sufficient dimensions to be at least partially disposed about a portion of an exterior surface of the region of vulnerable tissue.

108. The containment member of Claim 107 wherein the containment member includes at least one free end.

109. The containment member of Claim 108 wherein the containment member includes at least one atraumatic end.

110. The containment member of Claim 107 further configured for attachment to a positioning means.

111. The containment member of Claim 110 wherein the positioning means is configured for securing the containment member to an adjacent tissue site or body part to minimize further vulnerability of the tissue site.

112. The containment member of Claim 111 wherein the containment member is configured to provide a compressive force against the vulnerable tissue.

113. The containment member of Claim 112 wherein the positioning means is configured to be biased against an adjacent healthy tissue site or body part.

114. The containment member of Claim 113 wherein the containment member is configured to provide a compressive force against the vulnerable tissue.

115. A containment member for containing a region of a vulnerable tissue of predetermined dimensions, providing a containment area of sufficient dimensions to cross over the region of the vulnerable tissue and be secured to healthy tissue adjacent to the region or two opposing sides of the region.

116. A delivery system for delivering a containment member to vulnerable tissue site of an intracorporeal body, comprising:

a catheter for slidably housing the containment member therein and further having proximal and distal portions and having a curve at a distal end thereof to bring about the desired deflection at the catheter distal end to negotiate the catheter through tortuous anatomy during treatment.

117. The system of Claim 116 wherein the curve is formed within up to about 2 mm to 20 cm of the catheter distal end.

118. The system of Claim 116 wherein the distal end has a curvature ranging from about 0.5 to about 3 cm.

119. The system of Claim 116 wherein the distal end is configured to have an angle ranging from about -180 degrees to +180 degrees.

120. The system of Claim 116 wherein the catheter has multiple deflection points.